

## 03050106-030

### (*Browns Creek*)

#### General Description

Watershed 03050106-030 is located in Union County and consists primarily of *Browns Creek* and its tributaries. The watershed occupies 33,945 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Madison-Cecil-Wilkes series. The erodibility of the soil (K) averages 0.26, and the slope of the terrain averages 13%, with a range of 2-40%. Land use/land cover in the watershed includes: 65.1% forested land, 17.3% agricultural land, 11.4% scrub/shrub land, 5.7% urban land, 0.3% barren land, and 0.2% water.

Big Browns Creek (Knox Creek, Bethlehem Creek, Meng Creek) originates near the City of Union and merges with Little Browns Creek to form Browns Creek. Gregorys Creek flows into Browns Creek just prior to its confluence with the Broad River. There are a few ponds in this watershed (totaling 58.6 acres) and 58.3 stream miles, all classified FW. The lower portion of the watershed resides within the Sumter National Forest.

#### Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
B-064	S	FW	MENG CREEK AT SC 49, 2.5 MI E OF UNION
B-243	S	FW	TRIBUTARY TO MENG CREEK AT CULVERT ON S-44-384, 3 MI E OF UNION
B-155	W/BIO	FW	BROWNS CREEK AT S-44-86, 8 MI E OF UNION
B-335	W	FW	GREGORYS CREEK AT S-44-86, 8 MI E OF UNION

***Browns Creek (B-155)*** - Although two copper excursions occurred, aquatic life uses are fully supported based on macroinvertebrate community data. A very high concentration of zinc was measured in 1995. Recreational uses are partially supported due to fecal coliform bacteria excursions.

***Meng Creek (B-064)*** - Aquatic life uses are fully supported. There is a significant decreasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus concentration suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions.

***Unnamed tributary to Meng Creek (B-243)*** - Aquatic life uses are fully supported. A significant increasing trend in dissolved oxygen concentration and significant decreasing trends in five-day biochemical oxygen demand, total phosphorus concentration, and turbidity suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions.

***Gregorys Creek (B-335)*** - Aquatic life uses are fully supported. Recreational uses are not supported due to fecal coliform bacteria excursions.

## NPDES Program

### *Active NPDES Facilities*

<i>RECEIVING STREAM FACILITY NAME PERMITTED FLOW @ PIPE (MGD) COMMENT</i>	<i>NPDES# TYPE LIMITATION</i>
BIG BROWNS CREEK CITY OF UNION/MENG CREEK PLANT PIPE #: 001 FLOW: 1.0 WQL FOR DO,TRC,NH3N	SC0047236 MAJOR DOMESTIC WATER QUALITY
BIG BROWNS CREEK TRIBUTARY SONOCO PRODUCTS/PINCKNEY PLT PIPE #: 001 FLOW: 0.001 WQL FOR BOD5,DO,TRC,NH3N	SC0028789 MINOR INDUSTRIAL WATER QUALITY
MENG CREEK CITY OF UNION/WTP PIPE #: 001 FLOW: 0.062 WQL FOR TRC	SCG645028 MINOR DOMESTIC WATER QUALITY

## Nonpoint Source Management Program

### *Land Disposal Activities*

#### **Landfill Facilities**

<i>LANDFILL NAME FACILITY TYPE</i>	<i>PERMIT # STATUS</i>
UNION COUNTY SANITARY LANDFILL DOMESTIC	DWP-902 (DWP-116, DWP-049) CLOSED
UNION COUNTY SANITARY LANDFILL DOMESTIC	441001-1101 CLOSED
UNION COUNTY C&D LANDFILL CONSTRUCTION	441001-1201 -----

## Growth Potential

There is a low to moderate potential for growth in this watershed, which contains a portion of the City of Union and the unincorporated Monarch Mill Village. Water service is available in most of the watershed, and the area should continue to experience scattered residential development. The Sumter National Forest effectively excludes the lower portion of the watershed from development.